

Youth Exposure to Community Violence and Psychological

Adjustment: The Role of Cognitive Appraisals

By

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Abstract

Exposure to community violence (CV) is a significant risk factor that many urban youth experience. CV is significantly predictive of a host of psychological difficulties; however, not all youth experience psychological problems and actually exhibit positive adjustment. Extant research indicates that youth's appraisals of stress are a key mechanism in the stress process and are significantly predictive of psychological adjustment. The current study assessed preadolescent youths' experiences and appraisals of CV and their relation to both youth's and caregiver's reports of youth emotional and behavioral functioning. The results of this study indicated that victimization by violence significantly predicted youth's report of maladjustment and adaptive behaviors. Additionally, results suggested that youth can appraise violence in several ways. Finally, challenge appraisals indirectly affected the relation between witnessing violence and caregiver's report of adaptive behaviors. The implications of the findings and areas of future research are discussed.

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Youth Exposure to Community Violence and Psychological

Adjustment: The Role of Cognitive Appraisals

A significant number of children and adolescents frequently experience violence in their communities (US Dept. of Justice, Office of Justice Programs, 2008). In fact, studies indicate that youth are more than twice as likely as adults to be victims of violence (Snyder & Sickmund, 2006). Community violence (CV) exposure appears to be especially common among youth residing in urban areas (U.S. Department of Justice, Office of Justice Programs, 2008). Of particular concern is the existing evidence that CV is a significant risk factor for youth maladjustment, as extant research indicates that this exposure is strongly associated with a range of psychological difficulties (Grant et al., 2005; Kliewer et al., 2004). Thus, youth exposure to CV is a significant public health concern for today's youth and warrants further study.

Although there is a strong relation between exposure to CV and psychological difficulties; this relation is complex, because not all youth who experience violence exhibit maladjustment (Ozer, Richards, & Kliewer, 2004). Subsequently, the field is examining potential underlying mechanisms in this relation, a necessary step to elucidate the processes that influence both maladjustment and positive adjustment (Salzinger, Ng-Mak, Feldman, Kam, & Rosario, 2006). Several investigations have focused on the role of cognitive processes (Bradshaw, Rodgers, Ghandour, & Garbarino, 2009; Schwartz & Proctor, 2000), specifically how one's perceptions of violence may influence one's adjustment.

For example, Kliewer and Sullivan (2008) demonstrated that youth's threat appraisals of violence mediated the relation between exposure to CV and psychological maladjustment, such that youth's perceptions of threat appraisals accounted for significantly more variance in maladjustment than the type or frequency of exposure to CV. Understanding the role of threat

appraisals is important, but seeing events as threatening is not the only possible option. Indeed, some youth given their prolonged exposure to violence may view CV as irrelevant or perhaps as a challenge, an experience that can make one stronger. Research investigating other youth stressors shows that challenge appraisals or other measures of positive change associated with stressful experiences are significantly related to fewer psychological difficulties and adaptive functioning in youth (Hunter, Boyle, & Warden, 2004; Ickovics, Meade, Kershaw, Milan, Lewis, & Ethier, 2006). Additionally, individuals who appraised potentially stressful events as nonsignificant to their overall well-being were less likely to exhibit psychological difficulties (King, 2005).

Taken together, these findings suggest that a more thorough investigation of youth's appraisals of CV may shed light on understanding the variability of youth's psychological outcomes associated with CV. Thus, the purpose of the current study was to systematically examine a range of appraisals and their potential relation between exposure to CV and psychological adjustment.

Exposure to Community Violence and Psychological Adjustment

According to the most recent comprehensive nationwide survey, approximately 60% of children were exposed to violence from 2007-2008, including victimization and witnessing of CV, crime, maltreatment, sibling and peer victimization, sexual victimization, family violence, and school violence (United States Justice Department, 2009). Among these, one of the most common types of violence exposure was CV; approximately 10% to 57% of youth are exposed to CV in their lifetime (United States Justice Department, 2009). In fact, rates of youth exposure are so high that CV could be considered a somewhat typical phenomenon for some youth.

Osofsky (1995) defined CV as “frequent and continual exposure to the use of guns, drugs, knives, and random violence” (p. 782). Violent events in the community can occur in youth's neighborhood and school and include events such as robbery, murder, physical and sexual assault, and peer victimization (i.e., bullying and gangs; Richters & Martinez, 1993). That is, events usually included in the definition of CV are most often criminal in nature or interpersonal experiences that are not necessarily manifested in the family. Additionally, youth can experience violence indirectly (i.e., witness) and directly (i.e., victimization); thus, youth's exposure to CV may vary tremendously. Extant research indicates that youth residing in urban, low-income communities appear to be at great risk for experiencing violence (see review by Salzinger, Feldman, Stockhammer, & Hood, 2002; United States Justice Department, 2008). Moreover, research strongly indicates that youth exposed to CV are not only at-risk for experiencing psychological difficulties, including internalizing problems (Grant et al., 2005; Jones, Foster, Forehand, & O'Connell, 2005), Posttraumatic Stress Disorder (Fowler, Tompsett, Braciszewski, Jacques-Tiura, & Baltes, 2009; Ozer & Weinstein, 2004), suicidality (Lambert, Copeland-Linder, & Ialongo, 2008), and externalizing problems (Kliewer et al., 2004, Salzinger, Rosario, Feldman, & Ng-Mak, 2008), but are also at-risk for juvenile violent offending and recidivism (Chauhan, Reppucci, & Turkheimer, 2009; Nofziger & Kurtz, 2005). Although it is possible that the youth surveyed in the research listed above could have had psychological problems prior to exposure to CV or could have also been perpetrators of violence themselves, it is also possible that exposure to CV may be a developmental risk factor that may increase the likelihood for maladjustment in youth (see review by Overstreet, 2000).

Mechanisms in the Relation between Exposure to Community Violence and Psychological Outcomes

Despite overall evidence of a strong relation between exposure to CV and psychological difficulties in youth, extant research indicates that this relation is not straightforward. That is, the field is characterized by inconsistent results across studies, including variability in the strength of the relations (Fowler et al., 2009). This variability in the strength of relations may be partly due to how researchers conceptualize and measure violence exposure. For example, many researchers examine overall violence exposure, including both witnessing and victimization events, and their relation to psychological difficulties (e.g., Lambert et al., 2008; Kliewer & Sullivan, 2008). Other researchers, however, separately measure youth's experiences with witnessing violence and youth's experiences with personal victimization and determine each type of violence's relation to psychological difficulties (e.g., Lynch & Cicchetti, 1998; Schwartz & Proctor, 2000). When researchers analyze the types of violence separately as opposed to an overall score, differential strengths in relations are noted. For example, according to Fowler and colleagues' recent meta-analytic review (2009), victimization by violence was more strongly associated with internalizing symptoms than witnessing violence. There were no differences in the strength of the relations between victimization and witnessing, however, and externalizing symptoms. These results suggest that it is important to separately investigate both types of violence exposure, as their relation to outcomes appears to vary.

Findings also suggest that not only do youth exposed to CV react in differing ways (Gorman-Smith & Tolan, 2003), but not all youth who experience CV exhibit maladjustment (Kliewer, Lepore, Oskin, & Johnson, 1998; Ozer et al., 2004; Richters & Martinez, 1993). In fact, recent research indicates that some youth appear to demonstrate adaptive behaviors despite

exposure, such as being able to relate to peers, having effective relations with parents, having a positive sense of self, and having self confidence in one's decision making abilities (Drerup Stokes & Jackson, 2010). The aforementioned findings have led the field to examine potential mechanisms in the relation between exposure to CV and psychological outcomes (Salzinger et al., 2006) that may illuminate underlying processes that may contribute to these discrepant findings.

Several studies have focused their investigation on the potential role of cognitive processes. Previous research demonstrated that youth's thoughts and perceptions are key mechanisms in the relation between exposure to CV and psychological outcomes (Bradshaw et al., 2009; Schwartz & Proctor, 2000). Specifically, youth exposed to CV who viewed aggression as a justifiable, appropriate response or who thought that positive outcomes would result from aggression were more likely to exhibit aggressive behavior themselves than youth who did not view aggression in this manner. These results suggest that youth's perceptions or interpretations of violence may account for different outcomes, such as aggressiveness. Indeed, Hill and Madhere (1996) found that youth varied in their perceptions of violence, including their experiences, uneasiness about violence, and views that retaliation was a justifiable response to violence. Moreover, youth's perceptions of their violence exposure were more predictive of adjustment (i.e., anxiety, social competence, & confrontational behavior) than actual counts of violent events. These perceptions of violence could also be characterized as *interpretations* of violence. It is possible that the meaning youth make about their violence experiences may vary and potentially contribute to the field's understanding of the complex relation between exposure and outcomes. Thus, the present study seeks to expand upon Hill and Madere's initial findings by investigating cognitive appraisals that may be associated with the experience of CV.

Cognitive Appraisal

Lazarus and Folkman (1984) first theorized that an understanding of an individual's interpretation (i.e., appraisal) of an event was key to understanding stress (i.e., manifestation of psychological difficulties). Appraisal refers to an individual's assessment of the meaning and significance of an event (Park & Folkman, 1997). Lazarus and Folkman defined stress as "a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering to his or her well-being" (p. 19). Thus, an individual may manifest psychological difficulties if he or she appraised a particular situation as unmanageable or threatening. Conversely, if an individual appraised a situation as manageable and nonthreatening, then psychological difficulties may not be manifested. Lazarus and Folkman theorized that the experience of feeling stressed, which is most often defined by one's reaction to events, is a result of a combination of characteristics that include aspects of the stressor itself, the context of the stress event, and unique characteristics of the person. Lazarus and Folkman's theory of stress may partially explain why the field continues to find discrepant results regarding the relation of stress to psychological functioning. According to their theory, stress is an individual experience, one that cannot be defined a priori. Moreover, the manifestation of stress is the result of a myriad of interacting factors and it is likely that appraisal is one of these factors to consider. To begin to understand how CV does or does not relate to adjustment, it may be important to address how one's interpretation or appraisal of the CV impacts the relation between CV exposure and maladjustment.

Past research investigating other youth stressors, such as marital hostility, divorce, and natural disasters, demonstrates that youth can interpret potential stress events in a variety of ways (Buehler, Lange, & Franck, 2007; Lack & Sullivan, 2008; Mazur, Wolchik, Virdin, Sandler, &

West, 1999). Moreover, youth appraisals of the same event can vary (Lengua, Long, & Meltzoff, 2006). For example, Lengua et al. found that youth were more likely to appraise the 9/11 attacks in a challenging manner than as a threat and the authors hypothesized that this may be due to their proximity of the exposure, as these youth indirectly experienced the attacks. Additionally, Israeli youth who directly experienced terrorist attacks were more likely to evaluate these events in a threatening manner than youth who indirectly experienced the violence (Braun-Lewensohn, Celestin-Wesstreich, Celestin, Verleye, Verte, & Ponjaert-Kristoffersen, 2009).

One's experience with CV can vary allowing for the possibility that youth may also appraise CV events in a variety of ways. Past research supports the notion that youth appraisals of CV mostly consist of threat, irrelevance, and/or challenge appraisals (Howard, 1996; Howard, Kaljee, & Jackson, 2002; Kliewer & Sullivan, 2008).

Threat appraisal. Threat appraisals occur when an individual perceives that he or she may suffer as a result of an event. Extant research indicates that youth perceive violence as a danger to themselves or others (e.g., Cooley-Quille, Boyd, Frantz, & Walsh, 2001). Further, youth have reported fears of violence, dying young, feelings of vulnerability, and powerlessness (Brown & Gourdine, 2007; Stevenson, 1997). Additionally, Kliewer and Sullivan (2008) provided evidence that threat appraisal can be multidimensional. When rating events as threatening, youth indicated their sense of threat included a range of reactions, including that the event had the potential to elicit negative evaluations from others, to result in material loss, or to result in the loss of a significant relationship.

Threat is not the only way that youth can interpret CV events, and Howard and colleagues (2002) provide some evidence that youth exposed to CV can also view these events as fairly unimportant to their lives.

Irrelevant appraisal. According to Lazarus and Folkman's appraisal theory (1984), irrelevant appraisals apply to situations where an individual evaluates an event as having no meaning or significant implications to his/her life. For example, Howard et al. (2002) interviewed youth about their violence exposure. During an interview, one child indicated no sense of threat from CV exposure. Specifically, the child reported "cause I don't pay it really no attention. I just keep going. I might talk about it to my mother when I come home, but as long as I'm home, I feel safe" (p. 62). This statement suggests that some youth may perceive CV to be irrelevant to their overall well-being. Intuitively, it makes sense that not all CV events likely hold the same personal significance as others. Howard's qualitative research provides some initial evidence that youth can appraise CV as irrelevant and the present study seeks to expand upon the knowledge base by empirically examining the role of irrelevant appraisals for youth exposed to CV.

Challenge appraisal. Qualitative research also suggests that youth may appraise CV as a stressor; however, with the exertion of effort, the stressor may have the potential to benefit youth. Lazarus and Folkman's appraisal theory (1984) supports the notion of challenge appraisals, which refer to perceptions that an event can benefit the individual or possesses the potential for growth (i.e., can become a better person after experiencing a situation, can learn good things from a difficult situation); however, extant research has only begun to investigate the existence of challenge appraisals in youth exposed to CV. Initial research indicates that some youth endorse beneficial changes in their behavior after witnessing violence. For example, youth reported that after violent experiences, they became more careful about who they spent time with and where they went (Howard et al., 2002). Examples of these responses include "...stopped hanging around certain people," "...no longer go where stuff is happening," "...best to stay to

yourself’ (Howard et al., p. 62). It is possible that these behavior changes reflect an underlying challenge appraisal of the violence. Indeed, the Yerkes-Dodson Law (1908) postulates that certain levels of arousal or stress may motivate individuals toward change. It is possible that experiencing CV may encourage some youth to appraise their experiences in a challenging manner, and although distressing at first, youth may change their interpretation of the event and see the experience as an opportunity to grow or learn.

Benign-positive appraisal. Finally, Lazarus and Folkman (1984) discussed the possibility that one may also interpret events as benign-positive, appraisals that consist of positive evaluations of a potentially stressful event. This appraisal appears to be similar to challenge appraisals, as both appraisals consist of positive evaluations. Challenge appraisals, however, require an individual to exert effort to grow from a situation, whereas benign positive appraisals are evaluations of an event as a good thing, without requiring any effort to make it a good event. The closest extant evidence of benign positive appraisals in the context of CV is found in research on appraisals of aggression. Findings suggested that youth who evaluated their own aggression in a positive manner (i.e., exhibited benign positive appraisals) were more likely to be aggressive themselves and *perpetrate* violence (Bradshaw et al., 2009; Schwartz & Proctor, 2000; Smith, Fischer, & Watson, 2009).

Although interesting, research on positive appraisal thus far has focused on the appraisals of youth’s own aggression toward others and not on youth’s own experiences of aggression toward them. Although research suggests that victims of CV can and do appraise these experiences in a variety of ways, positive appraisal does not appear to be one of the ways supported by extant research.

The aforementioned findings indicate that youth appraise violence in different ways. These differences may be important in understanding the variance in psychological outcomes that youth experience in the context of CV. Indeed, to understand the variability in psychological outcomes associated with similar events, the field may benefit from examining how youth interpret or appraise the events they experience (Lazarus & Folkman, 1984; Park & Folkman, 1997). Collectively, the evidence indicates that threat, irrelevant, and challenge appraisals may be the most likely ways youth appraise CV (Howard, 1996, Howard et al., 2002; Kliewer & Sullivan, 2008). To date, research has only empirically examined threat appraisal and none of the past research has examined different types of appraisal at one time despite evidence that youth do appraise CV events in different ways. Therefore, the current study expanded upon the literature base by conducting a multi-focused examination on the influence of cognitive appraisals in the relation between CV and psychological outcomes.

It is important to note that past research asks youth to appraise violent events that occurred in the past. According to Lazarus and Folkman's appraisal theory, threat, irrelevant, and challenge appraisals are evaluations of events that have not yet occurred. If one adhered strictly to this theory, only harm/loss appraisals could be assessed for past events. As Park (2010) noted, however, investigations of appraisals in the field primarily refer to appraisals of a past event, rather than initial appraisals of an event. To assess an individual's initial appraisal of an event, experimental methods are needed; however, the current study utilized a quasi-experimental design. Therefore, similar to others in the field (i.e., Kliewer & Sullivan, 2008), the current study asked youth to appraise past CV events, including the appraisal types of threat, irrelevant, and challenge appraisals.

To examine how different types of appraisal may influence the relation between CV and adjustment, it is important to show not only that CV is related to adjustment and appraisal, but also that different appraisal types are also related to psychological outcomes.

Appraisal Types Differentially Related to Psychological Adjustment

Youth appraisals are predictive of psychological outcomes across a wide range of potentially stressful events, such as divorce (Lengua, Sandler, West, Wolchik, & Curran, 1999; Mazur, Wolchik, Virdin, Sandler, & West, 1999), marital hostility (Buehler, Lange, & Franck, 2007), life events (Hood, Power, & Hill, 2009), interparental conflict (Grych, Fincham, Jouriles, & McDonald, 2000; Kim, Jackson, Hunter, & Conrad, 2009), medical procedures (Claar, Walker, & Smith, 2002), cancer (Fearnow-Kenney & Kliwer, 2000), and traumatic injury (Bryant, Salmon, Sinclair, & Davidson, 2007). Moreover, extant research demonstrates that threat appraisals appear to be a mechanism by which stress events are associated with psychological maladjustment, such as internalizing and externalizing problems. For example, Grych and colleagues (2000) found that youth who perceived their parents' conflict as threatening endorsed more anxiety and depression than youth who did not perceive their parents' conflict as threatening. Moreover, threat appraisals mediated the association between exposure to interparental conflict and internalizing problems. Clearly, literature supports the notion that perceptions of threat are predictive of psychological difficulties and may be important contributors in this relation.

In addition to threat appraisals, other types of appraisals, such as irrelevance, are important to understanding psychological outcomes associated with stressful events; however, few investigations have examined this specific type of appraisal in youth. In the adult literature, King (2005) found that individuals who evaluated perceived discrimination as irrelevant to their

well-being were less likely to experience psychological stress. That is, individuals who evaluate a potential stress as not having significant implications for their life are less likely to exhibit psychological maladjustment than individuals who appraise the event as significant to their well-being.

The closest evidence for the role of irrelevant appraisals in youth comes from Claar and colleagues (2002). The authors evaluated threat appraisals in youth undergoing invasive medical procedures. Part of the authors' conceptualization of threat included evaluating the event as significant or relevant to the child. That is, children responded whether swallowing the endoscope was a "big deal" (i.e., significant). Results suggested that youth who evaluated the medical procedure as less threatening, including their perception that the event was not significant (i.e., irrelevant) endorsed less anxiety and distress than youth who evaluated the procedure as significant and threatening. The aforementioned initial evidence for the role of irrelevant appraisals supports the notion that they are also related to maladjustment; however, more research is warranted to continue to further evaluate its relation to youth outcomes.

Finally, extant research also supports the role of challenge appraisals and their relation to psychological outcomes. Indeed, research investigating potential stress events has demonstrated that challenge appraisals or other measures of positive change associated with traumatic experiences may influence one's positive adjustment. For example, youth who evaluated bullying events as challenging (i.e., able to manage bullies, will become a stronger person after experiencing bullying) were significantly more likely to seek help from others than youth who did not appraise bullying as challenging (Hunter, Boyle, & Warden, 2004). Interestingly, threat appraisals were not predictive of help seeking behaviors, further suggesting that appraisal types may be differentially related to outcomes.

In a similar area of cognitive processes, Ickovics and colleagues (2006) prospectively investigated urban adolescents' posttraumatic growth, which is the extent to which an individual endorses beneficial changes as a result of a traumatic experience. Adolescents reported the most traumatic life event they had experienced (i.e., pregnancy, death of a loved one, physical threats, and interpersonal problems) and 12 to 18 months later, they reported their appraisals of their traumatic life event. The authors suggested examples that may provide evidence of posttraumatic growth including an appreciation of life, having personal strength, recognizing new possibilities, and possessing the ability to relate to others, all of which are quite similar to challenge interpretations. Results indicated that adolescents who demonstrated posttraumatic growth had less emotional distress (i.e., depression, anxiety, and hostility symptoms) following a trauma than adolescents who did not demonstrate posttraumatic growth. That is, the experience, be it death or fights with friends, was perceived by the youth as important in improving their well being in some way. Taken together, preliminary evidence suggests that appraisal research should include challenge appraisals as a contributor to psychological adjustment. Thus, the present study seeks to expand the investigation of the relation between challenge and youth adjustment. These appraisals may partially explain the findings that some youth exhibit adaptive functioning despite violence exposure.

It is evident that the field has established relations between appraisal and psychological outcomes across various potentially stressful events. Specifically, studies have examined and support the notion that threat appraisals may affect the relation between stressful events and psychological maladjustment (e.g., Buehler et al., 2007; Grych et al, 2000). Evidence also suggests that irrelevant appraisals may also operate as potential mediators, as individuals who appraise events as irrelevant are less likely to exhibit psychological difficulties. Studies

regarding the relation of challenge appraisals and adaptive functioning are beginning to emerge; however, more research is needed to support these initial findings. Thus, extant research suggests that appraisal may operate as a mediational mechanism in the relation between stressful events and psychological maladjustment.

The role of appraisals in the potentially stressful event of CV has been given less attention, despite existing evidence for the mediational role of appraisals in other stressful contexts. Initial research by Kliewer and Sullivan (2008) found that youth's threat appraisals of CV were significant mediators in the relation between CV and internalizing symptoms. Specifically, threat appraisals accounted for more variability in internalizing symptoms over and above the quantity or type of violence exposure. That is, the intensity (i.e., witnessing or victimization) and frequency was less important in explaining outcomes than youth's appraisals of threat (Kliewer & Sullivan, 2008). It is possible that irrelevant and challenge appraisals may too indirectly affect this relation, as past research has begun to show differential relations that may exist between appraisal and psychological outcomes in other stressor contexts. Thus, the present study sought to advance the field by examining threat, irrelevant, and challenge appraisals and their potential relation to both maladjustment and positive adjustment.

Complexity of Community Violence Research

Clearly, youth in urban environments are exposed to a myriad of risk factors that co-occur with CV, such as poverty, maltreatment, and family violence (see reviews by O'Keefe, 1997; Osofsky, 1995; Salzinger et al., 2002). Extant research demonstrates that these experiences are also significantly predictive of youth's psychological outcomes (see reviews by Lynch & Cicchetti, 1995; O'Keefe, 1996; Wadsworth & Santiago, 2008); therefore, an investigation of youth exposed to CV must acknowledge that when other risk factors are present, it may not be

clear if what is captured in outcome measures is actually the product of the unique effects of CV or some other co-occurring environmental risk factor. The present study did not disentangle the likely overlapping risk factors that youth experience, but instead provided a focus on how some of that risk (i.e., exposure to CV) operates to predict outcomes. The advantage of the present study was the spotlight on appraisal and the effort to illuminate how exposure to CV and multiple appraisal types are related to predict psychological adjustment. Additionally, the current study sought a more in depth analysis of the construct of CV by restricting its definition to only those experiences that happen outside the home or with non-family members.

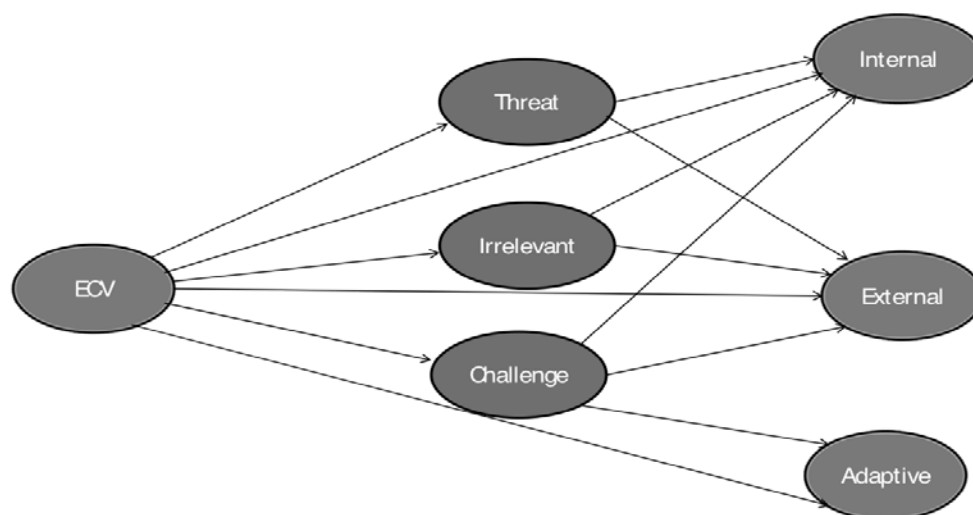
Limits of Past Research and Purpose of Current Study

Thus far, it is clear that youth exposure to CV is a significant concern that is associated with a range of psychological difficulties. Not all youth, however, exhibit maladjustment. Evidence in other stressor contexts indicates that multiple types of appraisal are differentially related to outcomes; however, research has yet to comprehensively investigate what contributions appraisal may make to understanding the relation between CV and psychological outcomes. The proposed study added to the field's understanding of the complex relation between exposure to CV and outcomes by systematically investigating three types of cognitive appraisal – threat, irrelevant, and challenge. Additionally, the study included a more thorough investigation of psychological outcomes by examining both maladjustment and positive adjustment. Finally, the current study assessed whether appraisal types indirectly affected the relations between CV and psychological adjustment.

Based on extant findings, it was first hypothesized that exposure to CV would be related to psychological outcomes. Specifically, exposure to CV was expected to be positively associated with internalizing and externalizing behaviors (i.e., maladjustment) and negatively

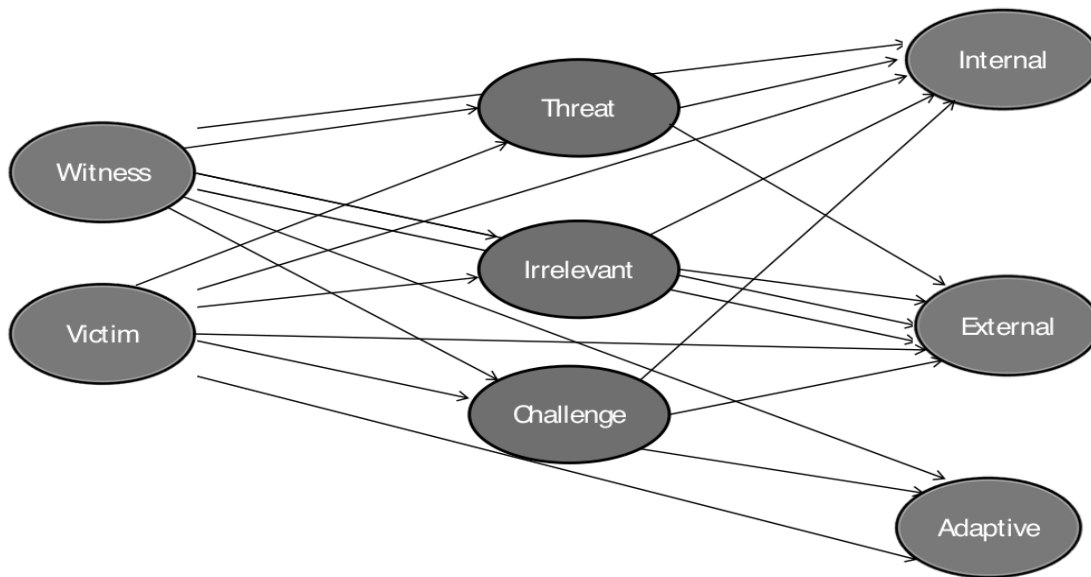
associated with adaptive behaviors (i.e., positive adjustment). Second, it was hypothesized that appraisal would be related to psychological difficulties. Specifically, threat appraisals were expected to be positively associated with maladjustment and irrelevant and challenge appraisals were expected to be negatively associated with maladjustment. Previous research provides initial support for the potential mediating role of appraisals; however, given the cross-sectional design of the current study, true mediation could not be tested. Thus, it was hypothesized that threat, irrelevant, and challenge appraisals would indirectly affect the relation between exposure to CV and maladaptive outcomes. Although there is some preliminary evidence that challenge appraisals may be related to adaptive functioning (Hunter et al., 2004), these initial findings are tentative at best. Therefore, exploratory analyses investigated the relation of challenge appraisals and adaptive functioning. Specifically, it was hypothesized that challenge appraisals would be positively associated with adaptive functioning and would indirectly affect the relation between exposure to CV and adaptive behaviors. See Figure 1.

Figure 1. Primary Model



In addition to the testing of the primary model, a secondary model was also tested. As previously mentioned, the study of CV is complex, in part due to the inconsistent results that characterize the field. In addition to the wide range of psychological symptoms that youth can experience, there is a lack of research addressing whether exposure to CV can be separated into two empirically meaningful categories- witnessing and victimization. The present study sought to address this by examining a secondary model that included the potential subtypes of CV- witnessing and victimization. It was hypothesized that the second model would be the better fitting model, because extant research demonstrates differential relations among the two types of violence exposure, thus suggesting two unique categories of CV (Fowler et al., 2009). See Figure 2.

Figure 2. Secondary Model



Method

Participants

The participants for the current study were 99 youth and 89 caregivers recruited from a summer dance camp for low income families from two urban, Midwestern cities. Youth participants' ages ranged from 11 to 15 years, with a mean age of 12.23 ($SD = 0.81$) years. Caregivers' ages ranged from 29 to 60 years, with a mean age of 38.37 ($SD = 7.05$). The majority of the youth and caregiver participants were female (92% and 91%, respectively). The majority of caregivers were parents (90%) and had either some college level education (40%) or were college graduates (19%). Approximately 93% of the youth identified themselves as an ethnic minority with 59% African-American, 20% biracial or multiracial, 8% Hispanic/Latino, 3% American Indian or Alaskan Native, 7% Caucasian, 2% Other, and 1% Asian.

Approximately 81% of the caregivers identified themselves as African-American, 10% Hispanic/Latin, 8% Caucasian, and 1% American Indian or Alaskan Native. The majority of the youth reported being in the 6th and 7th grade (85.4%) the previous academic year.

As a proxy for the youth's ability to understand and speak English, youth and caregivers reported the youth's average grades. The majority of both youth and caregivers reported that the youth made mostly A's and B's in school (91.3% and 88.9%, respectively). As a proxy for the physical health of youth, youth reported their health status. Approximately 92% of youth reported that their health status was good, very good, or excellent. Regarding family income, 67% of caregivers reported a yearly income below \$30,000. Moreover, approximately 74% of families had 4 or more family members. Approximately 29% of families reported incomes and family sizes that were below the federal poverty level (United States Department of Health and Human Services, 2010).

One hundred and thirty-five caregivers and youth completed measures. Thirty-six youth and 46 caregiver data were excluded from the analyses for the following reasons: missing youth ages and data (3 cases; i.e., because there are two versions of the BASC based on age, there was not a method to determine which version to impute), youth elevations on a validity index on the BASC-2 (4 cases), enrolled families that never completed consent forms (24 cases), cases where the caregiver did not consent for him/herself or his/her child (5 cases), cases where the caregiver only consented for him/herself (4 cases) or just for the child (10 cases), resulting in 99 youth and 89 caregivers.

Measures

Demographics. Youth self-reported the following information: sex, age, ethnicity, current grades, and overall health status. Caregivers self-reported the following information: sex, age,

reporter status, ethnicity, highest education level received, their child's current grades, number of members in their household, and yearly income. See Appendix A.

Community Violence Exposure and Appraisal. My Experiences with Violence (MEV) is a 65-item, self-report measure designed to assess type and frequency of youth's lifetime CV exposure and youth's appraisals of CV. No measure exists that captures both CV exposure and appraisal of these events; therefore, assessment of this construct was completed by the use of a measure created for the current study. The following steps were taken to create this measure. First, the author reviewed existing measures of CV exposure [i.e., Children's Report of Exposure to Violence (Cooley, Turner, & Beidel, 1995), Juvenile Victimization Questionnaire (Hamby, Finkelhor, Ormrod, & Turner, 2004), The Survey of Children's Exposure to CV (Richters & Martinez, 1990)] and chose items that pertained to violence events in youth's communities and schools, and excluded those that represented violence in the family. The author then chose items that appeared to reflect either direct victimization or witnessing violence. Consistent with most researchers's practice in the field, items that reflected hearing about violence were excluded. Finally, the author expanded upon existing measures to include bullying and dating violence, because these events occur in the context of one's school and community and can be a relatively common experience for some youth (United States Department of Justice, 2009).

The author also reviewed existing measures of appraisal [The Threat Appraisals of Negative Events (Kliewer & Sullivan, 2008), The Stress Appraisal Measure for Adolescents (Rowley, Roesch, Jurica, & Vaughn, 2005), and The Stress Appraisal Measure (Peacock & Wong, 1990)] and chose three items that appeared to reflect each appraisal type (e.g., threat: "these situations have a bad effect on me or my life"; irrelevant: "these situations have important

and serious effects on me and my life” (reverse scored); challenge: “even though these situations are hard to deal with, I have learned good things from them”).

The author considered developmental appropriateness when selecting items and the Flesch-Kincaid grade level for the measure was 5.4. Finally, three items were chosen for each appraisal type for a just-identified construct (i.e., equal number of pieces of information as there are estimates to be made) for structural equation modeling (Little, in press). The intention was to create a measure that expanded upon existing measures in that the youth could indicate not only what events had occurred, but also how the youth interpreted a group of similar events as it related to their well-being.

The result of the aforementioned review of the literature produced twenty-nine potential items to capture the constructs of witnessing violence and victimization by violence. These events included dating violence, peer victimization, physical assault with and without a weapon, hearing gunshots, sexual assault, crime, and drug related events. Youth endorsed how often they experienced these events over the course of their lifetime on a 5-point Likert scale (i.e., “never” to “every day”). Violent events were dichotomized into witnessing (i.e., 13 items) and victimization (i.e., 16 items) and the measure yielded a score of victimization (i.e., sum of each victimization event multiplied by the frequency) and a score of witnessing (i.e., sum of each witnessing event multiplied by the frequency). These a priori assumptions were tested by a factor analysis; therefore, the dichotomization described above was based on the factor structure of the measure. Based on the factor analysis described in detail below, each youth participant had a score representing the total number of CV events witnessed in their lifetime and another score representing the total number of CV victimization experiences. Higher scores indicated more

frequent exposure. Coefficient alphas for witnessing and victimization scales were .88 and .75, respectively. See Appendix B for the MEV items.

For the appraisal items, youth indicated how often they used the different appraisal types on a 5-point Likert scale (i.e., never to all the time) for all of the items they endorsed on the witnessing scale as a whole and again for all victimization items endorsed as a whole. The items on the irrelevant subscale were reverse coded. Higher scores indicated more frequent use of an appraisal type than lower scores. Coefficient alphas for threat, irrelevance, and challenge appraisals were .89, .91, and .80, respectively. See Appendix B for the appraisal items of the MEV. It was expected that youth would have three appraisal scores (threat, challenge, and irrelevant) for witnessing and three scores for victimization. These a priori assumptions were tested by a factor analysis, described in detail below.

Factor Analysis of the MEV

A confirmatory factor analysis (CFA) using a structural equation modeling framework (i.e., LISREL 8.80) was completed to investigate the factor structure of the MEV and determine if the hypothesized relations between the observed indicators (i.e., items) and latent constructs (i.e., exposure to CV and appraisal) were supported (Brown, 2006). The author defined a priori how the items will load onto the scales of the MEV (see Appendix B) and the CFA determined whether the data fit this conceptualization. See Table 1 for witnessing and victimization item loadings. Items were parceled based on factor loadings and a priori assumptions of which items loaded onto which scales because parceling ensures higher reliability, stronger factor loadings, and are more likely to reflect a normal distribution than individual items alone (Little, in press).

Table 1

Item Loadings for Witnessing and Victimization

<i>Violence Witnessed</i>	<i>Standardized Item Loading</i>
Seen someone get sexually assaulted, molested, or raped	.38
Seen someone's house broken into	.44
Seen someone being called names by other kids	.50
Seen someone get beaten up or mugged	.56
Seen someone being bullied by kids	.58
Seen someone get threatened, punched, or hit by non-family member	.59
Seen someone get shot or shot at with a gun	.60
Seen someone being slapped or hit by a boy/girl friend	.64
Seen someone get threatened with serious physical harm by someone	.64
Seen someone who was seriously hurt after a violent situation	.65
Seen someone get attacked with a weapon or stabbed with a knife	.69
Seen someone get chased by gangs or older kids	.76
Seen someone get involved with drugs, such as selling drugs or using drugs	.79
<i>Violence Experienced</i>	<i>Standardized Item Loading</i>
Been at home when someone broke into house	.08
Bullied by kids in your school or community	.15
Slapped or hit by a boyfriend, girlfriend, or anyone you went on a date with	.27
Shot or shot at with a gun	.36
Asked to get involved with drugs	.36
Called names by other kids in your school or community	.42
Heard the sound of gunfire in your neighborhood or near your school	.45
Beaten up or mugged	.44
Seen someone being killed by another person	.48
Slapped, punched, or hit by someone who was not a non-family member	.49
Seen a dead person	.49
Threatened with serious physical harm by someone	.49
Sexually assaulted, molested, or raped	.54
Chased by gangs or other older kids	.56
Seriously hurt after a violent situation	.62
Attacked with a weapon or stabbed with a knife	.66

The factor loadings of an initial model that used item level data for the MEV were used to create 3 parcels that included both witnessing and victimization items to create a construct assessing overall exposure to violence. To create these parcels, the highest loading item was in parcel one, the next highest loading in parcel two and the third highest loading in parcel three. For the appraisal types of threat, irrelevance, and challenge, three parcels were created based on theory that included appraisal items for both witnessing and victimization. For example, the first

parcel of threat included the item “these situations have a bad effect on me or my life” for witnessed events and victimization events, resulting in a parcel of two scores. The first few models assessed whether the measurement of CV was better represented as an overall construct rather than two separate subtypes of violence—witnessing and victimization. Similarly, these models also assessed whether the three types of appraisal were better represented as three overall constructs that included appraisals for both witnessing and victimization rather than six constructs of appraisal that were separated by witnessing and victimization.

The first tested model was a four-factor model in which the item parcels were a function of four separate factors including overall exposure to CV, threat, irrelevance, and challenge. This initial, freely estimated model (Model I), demonstrated acceptable to close fit ($\chi^2 (84, n = 103) = 144.05, p = 0.00, RMSEA = .084, TLI = .96, CFI = .97$); however, the PSI covariance matrix suggested that the constructs of threat and irrelevance were the same (i.e., highly correlated, appeared to be on opposite ends of the spectrum). The data suggested that youth evaluated a violent event on a continuum of threatening and relevant to non-threatening and irrelevant. Due to this finding, the next model combined the construct of threat and irrelevance. To do this, the irrelevant items were re-reverse scored so that the construct of irrelevant appraisals became relevant appraisals and all items were positively correlated. Then, three parcels, with four items in each parcel, were created that included both threatening and relevant items. The next model had three factors including exposure to CV, threat/relevant, and challenge. This second, freely estimated model (Model II), demonstrated acceptable to close fit ($\chi^2 (51, n = 103) = 91.63, p = 0.00, RMSEA = .083, TLI = .95, CFI = .96$). The third model assessed whether the two constructs of appraisal (i.e., threat/relevant and challenge) loaded onto a higher order construct of exposure to CV using beta loadings, with the three factors in Model II. This third, freely

estimated model (Model III) was equivalent to Model II and demonstrated acceptable to close fit ($\chi^2 (51, n = 103) = 91.63, p = 0.00, RMSEA = .083, TLI = .95, CFI = .96$).

The next model assessed whether the construct of CV was better represented by the subtypes of violence and whether the appraisal types were specific to the subtypes of violence. For this model, the original three appraisal types were used to examine whether the nature of the appraisal items differed when separated by witnessing and victimization. Parcels were not used in this model because there were three indicators per construct. This model included eight factors: witnessed violence, violence by victimization, threat appraisal of witnessed violence, irrelevant appraisal of witnessed violence, challenge appraisal of witnessed violence, threat appraisal of victimization by violence, irrelevant appraisal of victimization by violence, and challenge appraisal of victimization by violence. This fourth, freely estimated model (Model IV), demonstrated acceptable to close fit ($\chi^2 (224, n = 103) = 406.45, p = 0.00, RMSEA = .080, TLI = .95, CFI = .96$). In this model, threat and irrelevant remained highly correlated; therefore, the next model assessed the same factors in Model IV but used the newly created construct of threat/relevant appraisal. This threat/relevant appraisal variable was created by the aforementioned steps, except the items were not parceled. This fifth, freely estimated model (Model V), demonstrated acceptable to close fit ($\chi^2 (120, n = 103) = 257.17, p = 0.00, RMSEA = .094, TLI = .93, CFI = .95$). These results indicated that the constructs of challenge appraisal (witnessing) and challenge appraisal (victimization) were also highly correlated and suggested that they may be part of an overall construct of appraisal of both types of violence. Thus, the next model assessed four factors that included witnessing, victimization, threat/relevant, and challenge. The model consisted of appraisal items of both witnessing and victimization events. This sixth, freely estimated model (Model VI), demonstrated close fit ($\chi^2 (48, n = 103) = 61.77, p$

= 0.00, RMSEA = .047, TLI = .98, CFI = .99). The next model (Model VII) assessed whether the constructs of appraisal both loaded onto witnessing and victimization. Model VII was equivalent to Model VI ($\chi^2 (48, n = 103) = 61.77, p = 0.00, RMSEA = .047, TLI = .98, CFI = .99$). Finally, the last model assessed whether the constructs of witnessing and victimization loaded onto a higher order construct of CV. This final model (Model VIII) demonstrated close fit ($\chi^2 (50, n = 103) = 62.89, p = 0.10, RMSEA = .045, TLI = .99, CFI = .99$).

Model Comparisons of the MEV

Model fit was assessed using the AIC and BIC and the chi-square difference test was used for the nested Models VII and VIII (i.e., Model VIII included the higher order construct of CV, thus Model VII had the same parameters and pathways as Model VIII except the higher order construct was constrained to zero). The AIC and BIC fit indices indicated that Models VI, VII, and VIII provided the best fit to the data. Models VI and VII were equivalent; therefore, Model VII was used for the indirect effects model because it included the necessary beta paths for the indirect effects model. The chi square difference test was utilized for comparing Models VII and Models VIII. Model VII is considered nested within Model VIII because the parameters of the higher order construct of CV have been constrained. The critical value for χ^2_{diff} was 13.82 ($\alpha = .001, df = 2$). The chi-square difference test results indicated that Model VII was more parsimonious ($\chi^2_{\text{diff}} (2) = 1.12$) than Model VIII. Model VII included the four factors of witnessing, victimization, threat/relevant, and challenge, with threat/relevant and challenge loading onto witnessing and victimization. Loadings, residuals, thetas, and squared multiple correlation values for each indicator in Model VII are presented in Table 2 and the fit indices for Models I-VIII are presented in Table 3.

Table 2

Loading Values, Residuals, Thetas, and R^2 Values for Each Indicator in Model VII

	<u>Estimates</u>	<u>Standardized</u>		
Indicator	<i>Loading (SE)</i>	<i>Loading^a</i>	<i>Theta</i>	<i>R²</i>
<u>Witnessing</u>				
Parcel 1	0.68 (0.07)	0.86	0.26	0.74
Parcel 2	0.55 (0.05)	0.86	0.27	0.73
Parcel 3	0.63 (0.06)	0.88	0.22	0.78
<u>Victimization</u>				
Parcel 1	0.37 (0.04)	0.80	0.36	0.64
Parcel 2	0.26 (0.04)	0.64	0.60	0.40
Parcel 3	0.29 (0.03)	0.77	0.40	0.60
<u>Threat/relevant</u>				
Parcel 1	0.78 (0.09)	0.88	0.23	0.77
Parcel 2	0.33 (0.05)	0.62	0.61	0.39
Parcel 3	0.45 (0.05)	0.84	0.30	0.70
<u>Challenge</u>				
Parcel 1	0.77 (0.11)	0.67	0.55	0.45
Parcel 2	0.43 (0.11)	0.42	0.83	0.17
Parcel 3	1.05 (0.14)	0.93	0.13	0.87

^aCommon Metric Completely Standardized Solution

Table 3

Fit Indices for Models I-VIII in the Confirmatory Factor Analysis

Model	χ^2	df	p	$\Delta \chi^2$	Δdf	p	RMSEA	RMSEA 90% CI	TLI	CFI	Constraint Tenable	AIC	BIC
Model I	144.05	84	0.00	---	---	---	.084	.060 - .107	0.96	0.97	---	216.06	346.90
Model II	91.63	51	0.00	---	---	---	.083	.052 - .113	0.95	0.96	---	141.15	239.29
Model III	91.63	51	0.00	---	---	---	.083	.052 - .113	0.95	0.96	---	141.15	239.20
Model IV	406.45	224	0.00	---	---	---	.080	.065 - .094	0.95	0.96	---	521.24	797.48
Model V	257.17	120	0.00	---	---	---	.094	.076 - .113	0.93	0.95	---	330.88	516.25
Model VI	61.77	48	0.00	---	---	---	.047	.000 - .084	0.98	0.99	---	119.15	228.19
Model VII	61.77	48	0.00	---	---	---	.047	.000 - .084	0.98	0.99	---	119.15	228.19
Model VIII ¹	62.89	50	0.00	1.12	2	.571	.045	.000 - .082	0.99	0.99	Yes	116.46	218.24

Evaluated with the χ^2 Difference Test compared to Model VII.

Therefore, the expected plan of three variables representing threat, challenge, and irrelevant appraisal for witnessing and three for victimization resulted in two variables that were subsequently used in the test of indirect effects. Specifically, youth received a score on threat/relevant (appraisal of all witnessed and victimization events) and a score on challenge appraisal (appraisal of all witnessed and victimization events).

Psychological Adjustment. The Behavior Assessment Scale for Children, Second Edition (BASC-2) was utilized to assess youth's behaviors and perceptions (Reynolds & Kamphaus, 2004). To obtain an accurate assessment of youth's psychological adjustment, both caregivers and youth completed the BASC-2. Previous research indicates that a multi-informant assessment is advantageous, because self-report measures are best suited for assessing youth's internal thoughts and feelings and caregiver reports are best suited for assessing observable behaviors (Reynolds & Kamphaus, 2004). Different forms of the measure were used for both caregivers

and youth depending upon the age of the child (i.e., children 11 years of age and younger & adolescents 12 years of age and older). Child/adolescent composite T-scores included: internalizing problems (i.e., anxiety, depression), inattention-hyperactivity (i.e., attention problems and hyperactivity), and personal adjustment (i.e., adaptation) (e.g., relations with parents, interpersonal relations, self-esteem, and self-reliance). Parent composite t-scores included: internalizing problems (i.e., anxiety, depression, somatization), externalizing problems (i.e., hyperactivity, aggression, and conduct problems), and adaptive skills (i.e., adaption) (e.g., social skills, leadership). The BASC-2 has demonstrated good reliability psychometrics with parent and child report alphas ranging .84 to .96 and test-retest reliability coefficients ranging .74 to .84 for composite scores. Additionally, the BASC-2 demonstrates good concurrent validity psychometrics with parent and child validity correlations with the Achenbach System of Empirically Based Assessment (Achenbach & Rescorla, 2001) ranging from .61 to .84. For the current study, child and parent composite scores were used for the analyses. The BASC-2 hand-scoring method was used. Composite scores, which were calculated by summing subscale scores, were used in analyses.

Factor Analysis of the BASC-2

Given that the BASC-2's normative sample was based on primarily Caucasian youth, it was important to determine if the factor structure of the BASC-2 child and parent report in the current sample was similar to the factor structure of the normative sample. Due to minor differences in the child and adolescent versions for the youth report, two scales on the adolescent version were eliminated from the analyses because the child version did not include these scales (i.e., somatization and sensation seeking) for the child internalizing composite. The results of the factor analysis indicated the initial, freely estimated model demonstrated mediocre to poor fit (χ^2

(50, $n = 103$) = 197.37, $p = 0.00$, RMSEA = .178, TLI = .86, CFI = .89). The modification indices suggested that the model fit would improve by correlating several residuals. Additionally, the data suggested that the subscale Sense of Inadequacy loaded onto the Externalizing Problem Composite in addition to the Internalizing Composite.

The second, freely estimated model demonstrated acceptable fit (χ^2 (47, $n = 103$) = 115.13, $p = 0.00$, RMSEA = .111, TLI = .93, CFI = .95), indicating that the factor structure of the child and adolescent BASC-2 was supported in the current sample. Similar to the child model, the first parent model demonstrated mediocre fit (χ^2 (41, $n = 103$) = 129.18, $p = 0.00$, RMSEA = .128, TLI = .89, CFI = .92). The modification indices suggested that the model fit would improve by correlating several residuals. The second, freely estimated model demonstrated acceptable fit (χ^2 (39, $n = 103$) = 100.46, $p = 0.00$, RMSEA = .111, TLI = .92, CFI = .94), indicating that the factor structure of the parent BASC-2 was supported in the current sample.

Procedure

The data for the current study were collected as part of a larger evaluation study of the dance camp. The current study received approval from the University of Kansas's Institutional Review Board. Parents of the youth were informed about the study during the camp orientation. Interested parents signed a consent form prior to administration of the study measures. A clinical child psychology graduate student read an assent to the youth and administered the study measures in a group format (i.e., approximately 20 kids) during the beginning week of camp. Youth were informed that their answers would be confidential and that they could stop completing the study measures at any time. Families that participated (i.e., parents and youth both complete measures at the beginning and end of camp) received a free DVD of the dance

performance to compensate them for their time. To ensure confidentiality, youth and parents were assigned individual identification numbers.

Due to the nature of the parent orientation sessions occurring prior to camp starting, twenty-seven caregivers consented to the project and completed measures, but their children never came to camp. These data were excluded from the analyses. Descriptive information indicated that these caregivers had similar demographic characteristics to the study's sample (i.e., mean age = 42.13 and 38.37 years, respectively; 28% and 40% some college education, respectively; 12% and 19% college graduates, respectively; 88% and 91% female, respectively; and 72% and 81% African American, respectively).

Missing Data

There was a small to modest amount of missing data (i.e., approximately 8%) (Little, in press). Imputation of missing data has many benefits if correct imputation procedures are used (Graham, Cumsille, & Elek-Fisk, 2003). The failure to impute missing data could reduce statistical power and result in biased results. To impute missing data, a principal components analysis was conducted. This method is recommended for large datasets (Little, McConnell, Howard, & Stump, 2008). The current dataset had more variables than cases and other imputation procedures were not effective (i.e., EM algorithm). The principle components analysis identified eighteen component scores that accounted for 80% of the variance in the dataset. These eighteen component scores were used to impute the data by scales. One-hundred imputations were used, although with the amount of missing data, only 20 imputations were needed (Little, in press). Sufficient statistics (i.e., means, standard deviations, and correlation matrix) were used for all of the models. It is important to note that non-imputed, original data is reported for all demographic variables (i.e., Table 4) in order to accurately describe the sample.

Additionally, non-imputed data is used in Tables 5 and 6, as the BASC-2 t-scores were derived from the original data.

Results

The results of youth's report of their lifetime exposure to CV are presented in Table 4. The data reported are the non-imputed data, as it is not recommended to use imputed demographic data. Using imputed demographic data would present a that the original demographic information is reported. Overall, youth endorsed witnessing violence more frequently than victimization by violence. On the thirteen witnessing items, 40% or more of the youth endorsed experiencing at least nine witnessing events, whereas 40% or more of the youth endorsed experiencing five victimization events. Specifically, the majority of youth endorsed having seen other kids called names, seen other kids bullied, seen someone seriously hurt after a violent situation, seen someone beaten up, seen someone slapped, hit, or punched by a non-family member, and seen someone threatened with serious physical harm. The most commonly reported victimization experiences included hearing gunfire, being asked to get involved with drugs, threatened with physical harm, and slapped or hit by someone they went on a date with. At least 10% of the youth reported being chased by gangs, beaten up or mugged, and seeing someone killed.

Table 4

Youth's Exposure to Community Violence Events that Occurred at Least Once (N=99)

<i>Violence Witnessed</i>	<i>Percent Endorsed</i>
Seen someone get sexually assaulted, molested, or raped	11.2
Seen someone get attacked with a weapon or stabbed with a knife	22.2
Seen someone's house broken into	22.4
Seen someone get shot or shot at with a gun	24.2
Seen someone being slapped or hit by a boy/girl friend	42.9
Seen someone get chased by gangs or older kids	44.4
Seen someone get involved with drugs, such as selling drugs or using drugs	49.0
Seen someone who was seriously hurt after a violent situation	55.6
Seen someone get threatened with serious physical harm by someone	57.1
Seen someone get beaten up or mugged	63.6
Seen someone get threatened, punched, or hit by non-family member	74.7
Seen someone being bullied by kids	88.9
Seen someone being called names by other kids	98.0
<i>Violence Experienced</i>	<i>Percent Endorsed</i>
Shot or shot at with a gun	4.0
Attacked with a weapon or stabbed with a knife	6.1
Sexually assaulted, molested, or raped	6.2
Called names by other kids in your school or community	8.2
Seriously hurt after a violent situation	9.2
Been at home when someone broke into house	9.2
Chased by gangs or other older kids	11.1
Beaten up or mugged	13.3
Seen someone being killed by another person	14.1
Bullied by kids in your school or community	14.3
Seen a dead person	21.4
Threatened with serious physical harm by someone	28.6
Slapped or hit by a boyfriend, girlfriend, or anyone you went on a date with	42.4
Slapped, punched, or hit by someone who was not a non-family member	48.5
Asked to get involved with drugs	73.5
Heard the sound of gunfire in your neighborhood or near your school	84.7

Note: original data, not imputed data

Descriptive statistics for the MEV (i.e., overall exposure to violence, witness, victim, threat, irrelevance, and challenge appraisal) and the BASC-2 caregiver and child composite scores (i.e., internalizing, externalizing, and adaptive behaviors) are presented in Table 5. The mean score for exposure to CV indicated that most youth witnessed and/or experienced several forms of violence and that all youth in the sample experienced some form of violence. The

scores for appraisal indicated that youth appraised CV in a range of ways, including threatening, irrelevant, and challenging. Youth evaluated their violence experiences as irrelevant more often than other types of appraisal. The mean scores for the caregiver and child internalizing, externalizing, and adaptive behaviors were in the typical range, indicating that, on average, the sample was not exhibiting clinically significant behavioral or emotional difficulties. Table 6, however, demonstrates that although the majority of youth were functioning in the average range, according to the youth-report, approximately 21%-26% of youth endorsed at-risk or clinically significant levels of maladjustment and 13% endorsed at-risk of clinically significant levels of poor adaptive behaviors. By the caregiver's report, approximately 8% -13% of youth experienced at-risk or clinically significant levels of maladjustment and 13% of at-risk levels of poor adaptive behaviors.

Table 5

Means and Standard Deviations of Exposure to Violence, Appraisal, Psychological Adjustment

Variable	Range	Mean	SD
Overall Exposure to Violence	3 – 66	20.88	12.57
Witnessing	1 – 39	13.74	8.34
Victimization	0 – 31	7.14	5.49
Threat	0 – 24	7.88	6.38
Irrelevant	0 – 24	16.93	6.71
Challenge	0 – 24	8.24	6.12
Youth Internalizing	36 – 83	51.09	10.90
Youth Externalizing	33 – 79	51.08	10.64
Youth Adaptive	26 – 69	51.61	9.89
Caregiver Internalizing	32 – 70	47.21	8.67
Caregiver Externalizing	35 – 82	48.16	10.43
Caregiver Adaptive	30 – 70	50.48	9.91

Note: original data, not imputed data. Exposure to Violence = Overall score of CV exposure; Witnessing= Witnessed Violence Subscale; Victimization= Victimization by Violence Subscale; Threat = Overall score of threat (i.e., both witnessing and victimization) Irrelevant = Overall score of irrelevant (i.e., both witnessing and victimization); Challenge= Overall score of challenge (i.e., both witnessing and victimization); Youth Internalizing = BASC Self-Report Internalizing Composite; Youth Externalizing = BASC Self-Report Externalizing Composite; Youth Adaptive = BASC Self-Report Adaptive Composite; Caregiver Internalizing = BASC Caregiver Report Internalizing Composite; Caregiver Externalizing = BASC Caregiver Report Externalizing Composite; Caregiver Adaptive = Caregiver Self-Report Adaptive Composite

Table 6

Severity Ranges of Internalizing, Externalizing, and Adaptive Behaviors

Behaviors	Average Percent	At-Risk Percent	Clinical Percent
Youth Internalizing	78.5	14.0	7.5
Youth Externalizing	74.2	20.4	5.4
Youth Adaptive	87.1	11.8	1.1
Caregiver Internalizing	91.7	7.1	1.2
Caregiver Externalizing	87.7	7.4	4.9
Caregiver Adaptive	86.9	13.1	0.0

Note: original data, not imputed data

Zero-order correlations of each of the scales on the MEV and the BASC caregiver and youth composite scores are presented in Table 7. As hypothesized, exposure to CV was significantly positively associated with internalizing (youth report), externalizing behaviors

(youth and caregiver report), and adaptive behaviors (youth report). Regarding appraisal, threat appraisals were associated in the hypothesized manner with internalizing behaviors (youth report) and externalizing behaviors (parent report). As predicted, irrelevant appraisals were significantly negatively associated with internalizing (youth report) and externalizing (youth report) behaviors. Challenge appraisals were significantly associated with externalizing behaviors (parent report). Finally, the exploratory hypothesis that challenge appraisals would be significantly positively associated with adaptive behaviors was not supported.

Table 7

Intercorrelations Among Study Variables (N = 99 youth; N=89 caregivers)

	1	2	3	4	5	6	7	8	9	10	11	12
1. ECV	1.00											
2. Witness	.94**	1.00										
3. Victim	.86**	.64**	1.00									
4. Threat	.56**	.52**	.49**	1.00								
5. Irrelevant	-.53**	-.48**	-.49**	-.87**	1.00							
6. Challenge	.44**	.42**	.37**	.44**	-.39*	1.00						
7. Internal (Y)	.47**	.37**	.50**	.31**	-.42**	.18	1.00					
8. External (Y)	.33**	.23*	.39**	.18	-.30**	.18	.60**	1.00				
9. Adaptive (Y)	-.25*	-.16	-.31**	-.23*	.26*	.08	-.54**	-.31**	1.00			
10. Internal (C)	.18	.11	.25*	.21	-.19	.19	.28*	.24*	-.07	1.00		
11. External (C)	.32**	.29*	.29**	.23*	-.17	.24*	.05	.22	-.03	.44**	1.00	
12. Adaptive (C)	-.05	-.03	-.08	-.18	.17	-.19	.01	-.20	.20	-.29**	-.44**	1.00

Note: ECV = Exposure to Community Violence; (Y) = youth; (C) = caregiver

** p < .01

* p < .05

Indirect Effects Model

Finally, to test the indirect effects hypotheses, structural equation modeling was used to develop latent factor models based on the hypotheses. Potential covariates (e.g., age, gender, ethnicity) in the hypothesized relations were examined by ANOVAs. Results indicated that there were no significant differences in the youth or caregiver BASC-2 outcomes when assessing demographic variables; therefore, covariates were not included in the model.

The indirect effects model assessed ten latent factors including witnessed violence, victimization by violence, threat/relevant appraisal, challenge appraisal, youth report of maladjustment (i.e., three parcels of internalizing and externalizing symptoms), youth report of adaptive behaviors, caregiver report of maladjustment (i.e., three parcels of internalizing and externalizing symptoms), caregiver report of adaptive behaviors, a youth method factor, and a caregiver method factor. Method factors were included to account for the method variance in the psychological outcome factors as a result of including both youth and caregiver report of psychological adjustment. This initial, freely estimated model demonstrated acceptable fit ($\chi^2(294, n = 103) = 537.65, p = 0.00, RMSEA = .08, TLI = .90, CFI = .91$). As hypothesized, exposure to violence (i.e., victimization) was significantly, positively associated with youth's report of maladjustment and negatively associated with youth's report of adaptive behaviors. Contrary to hypotheses, when controlling for the effects of exposure to violence on outcomes, threat/relevant appraisals were not significantly associated with psychological outcomes. Challenge appraisals were also not significantly associated with maladjustment. Moreover, hypotheses regarding the exploratory analyses of the relation between challenge appraisals and adaptive behaviors were not supported; however, caregiver's report of adaptive behaviors were negatively associated with challenge appraisals.

To assess for the potential indirect effects, the Monte Carlo Method for Assessing Mediation was utilized (MacKinnon, Lockwood, & Williams, 2004; Selig & Preacher, 2008). This method was used because the actual data were not available. Due to the use of the PCA analysis, sufficient statistics were calculated, rather than actual data. This online calculator computes a confidence interval for the indirect effect using the unstandardized regression coefficients and standard deviations, which were obtained from the SEM model with sufficient statistics. A 95% confidence interval was utilized and 20,000 repetitions were conducted. The indirect effect is significant if the confidence intervals do not contain zero. The power analysis indicated that the model had a mediocre level of power (.71) to reject the null hypothesis, suggesting that the results must be interpreted with some caution as there is a chance for type II error. Results indicated that challenge appraisals indirectly affected the relation between witnessed violence and caregiver report of adaptive behaviors. These results suggest that youth who appraise witnessed violence in a challenging manner are more likely to have deficits in their adaptive behaviors, as reported by their caregivers. See Table 8 for the unstandardized regression coefficients, standard deviations, and z-scores and Figure 3 for the model.

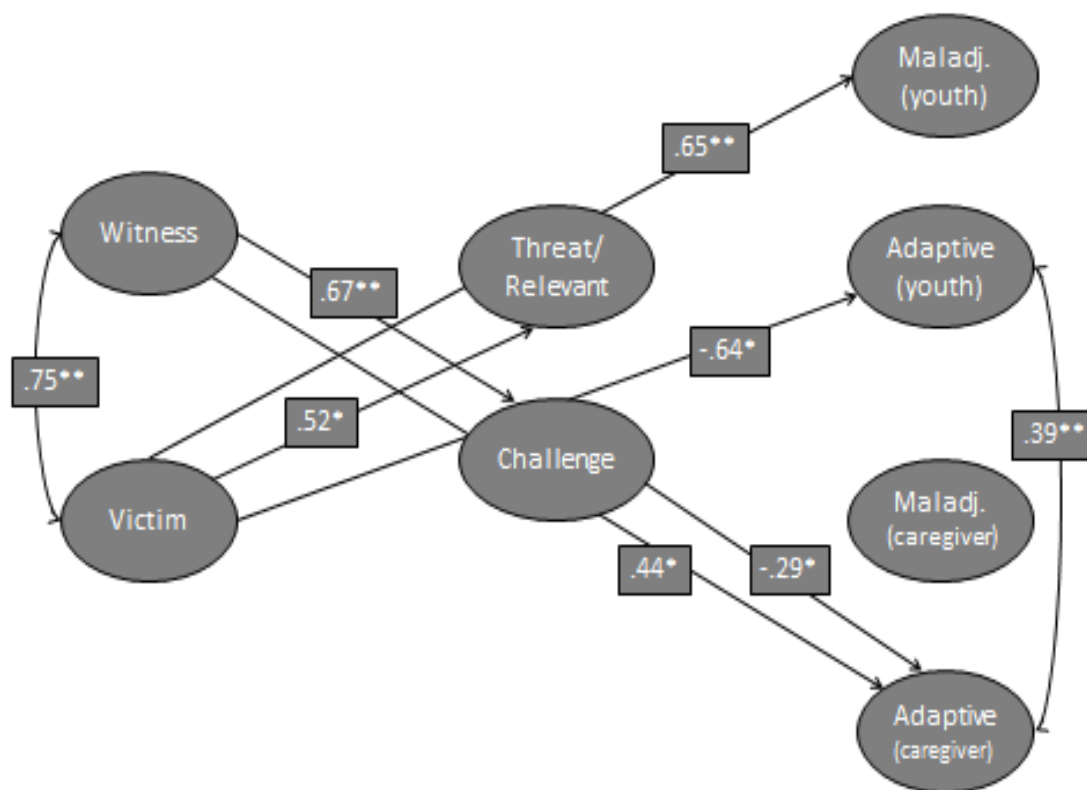
Table 8

Confidence Intervals for the Indirect Effects Model

Independent Variable	Indirect Effect Variable	Dependent Variable	LL CI	UL CI
Witness	Threat/relevant	Maladjustment (child)	-.134	.107
Witness	Threat/relevant	Maladjustment (parent)	-.081	.120
Witness	Challenge	Maladjustment (child)	-.079	.279
Witness	Challenge	Maladjustment (parent)	-.009	.313
Witness	Threat/relevant	Adaptive (child)	-.105	.156
Witness	Threat/relevant	Adaptive (parent)	-.171	.058
Witness	Challenge	Adaptive (child)	-.158	.228
Witness	Challenge*	Adaptive (parent)	-.429	-.028
Victim	Threat/relevant	Maladjustment (child)	-.164	.126
Victim	Threat/relevant	Maladjustment (parent)	-.097	.144
Victim	Challenge	Maladjustment (child)	-.076	.100
Victim	Challenge	Maladjustment (parent)	-.090	.112
Victim	Threat/relevant	Adaptive (child)	-.130	.190
Victim	Threat/relevant	Adaptive (parent)	-.201	.071
Victim	Challenge	Adaptive (child)	-.065	.074
Victim	Challenge	Adaptive (parent)	-.165	.130

Note: *Significant indirect effect $p=.05$. LL CI= Lower level confidence interval. UL CI= Upper level confidence interval

Figure 3. Indirect Effects Model



Discussion

The purpose of the current study was to examine the potential mechanism of cognitive appraisal in the relation between youth exposure to CV and psychological outcomes. The current study expanded upon existing findings by investigating a wider range of cognitive appraisals than in previous research and a thorough investigation of psychological outcomes by assessing multiple reports of maladjustment and positive adjustment. Overall, the results suggest that witnessing and victimization have different relations with adjustment and that youth may evaluate CV in more than one way, including the perception that violence is threatening and relevant to their well-being and the perception that violence can result in positive changes in

youth's lives. The results also indicated that youth's challenge appraisals may indirectly affect the relation between witnessing violence and adaptive behaviors.

Youth's Exposure to Community Violence

The results indicate that youth were exposed to a wide range of violence in their urban communities, including both witnessing violence and directly experiencing victimization. Ninety-eight percent of the sample endorsed experiencing a violent event at least once in their lives, with rates of witnessing violence higher than rates of victimization. These results suggest that there are multiple opportunities for youth to experience violence in both their schools and communities. The present results were similar to previous studies whose samples consisted of urban females (i.e., Farrell & Bruce, 1997; Horowitz, Weine, & Jekel, 1995). Overall, prevalence rates were similar (i.e., percent discrepancies less than 10%); however, the present sample did not witness or experience physical assault as frequently, but did endorse witnessing serious injury after a violence incident more frequently than Horowitz's sample. The current sample's prevalence rates were somewhat higher on specific types of witnessed violence, however, compared to a previous investigation of preadolescents (i.e., Kliwer & Sullivan, 2008). Specifically, youth in the current sample endorsed witnessing more violence with drugs, seeing someone threatened with violence, witnessing someone get slapped or hit, witnessing someone get beaten up or mugged, and witnessing serious injury after a violence incident than Kliwer and Sullivan's sample. Youth in the current sample had lower prevalence rates than Kliwer and Sullivan's sample, however, regarding witnessing others chased and witnessing a break-in. Although there were a few discrepancies regarding the frequency of different types of witnessed violence that youth experienced, mean frequency scores of witnessed violence were similar [e.g., 1.05, current sample; .93, Kliwer & Sullivan). Mean frequency scores of victimization were

somewhat lower in the current sample than in Kliewer and Sullivan's [e.g., .45, current sample; .65 Kliewer & Sullivan]. Thus, the present results are overall commensurate to extant literature with female, preadolescent samples and are representative of extant findings on youth's exposure to CV.

A unique aspect of the current study was conceptualizing dating violence and bullying as types of CV events. Previous research has typically limited the investigation of CV exposure to events that involve criminal activities (i.e., robbery, shooting) or physical assault (i.e., beaten up, mugged, hit). The present results of the models of CV indicate that both of these types of violence are part of the construct of CV. Dating violence is a type of physical assault and based on the current study's lifetime rates, dating violence occurs almost as frequently as traditional types of CV, such as physical assault by non-family members. Regarding bullying, interpersonal conflict can also be a form of violence. Indeed, research has established that aggression can take different forms, including both overt/physical aggression and relational aggression (Little, Jones, Henrich, & Hawley, 2003) and bullying can encompass both of these behaviors.

It is important for the field to accurately capture the range of youth CV experiences; however, previous definitions of CV have been somewhat limited. By including dating violence and bullying in the current conceptualization of CV, the field may gain a more complete picture of youth's violence experiences in their communities.

Youth's Exposure to Community Violence and Psychological Adjustment

Similar to previous research (e.g., Grant et al., 2005; Jones, Foster, Forehand, & O'Connell, 2005), the results indicated significant relations between exposure to violence and psychological functioning. Correlational analyses indicated that both witnessing and victimization experiences were related to maladjustment and adaptive behaviors; however,

structural equation modeling results indicated that only victimization was significantly predictive of youth's reports of maladjustment, after accounting for the effects of witnessing violence.

In addition to the significant relations, the results indicated that although the majority of youth were functioning in the average range, approximately 22% -26% (child report) and 8% to 12% of youth (caregiver report) were in the at-risk or clinical range of psychological maladjustment (i.e., T-scores greater than 60). These findings are consistent with extant literature that indicates that not all youth who are exposed to CV exhibit psychological difficulties (Kliewer, Lepore, Oskin, & Johnson, 1998; Ozer et al., 2004). It is unclear, however, how similar the current results are to other investigations of psychological outcomes associated with youth exposure to CV. The body of extant research clearly indicates that higher levels of CV are associated with higher levels of psychopathology than lower levels of violence; however, studies rarely indicate if the youth included in past research evidence clinically significant levels of pathology (e.g., Kennedy, Bybee, Sullivan, & Greeson, 2009; Kliewer, Lepore, Oskin, & Johnson, 1998; Schwartz & Proctor, 2000). For example, Kennedy and colleagues (2010) reported the mean scores of depression in their sample of youth exposed to community violence, but not the percent of their sample that endorsed clinical levels of depressive symptoms. Indeed, even among a few of the most frequently cited articles on community violence (e.g., Gorman-Smith & Tolan, 1998; Lynch & Cicchetti, 1998; Singer, Anglin, Song, & Lunghofer, 1995), only Lynch and Cicchetti provided information regarding the percentage of youth in their sample who endorsed clinically significant levels of psychopathology. Additional exceptions to this pattern are Foster and colleagues (2004) and Aisenberg and colleagues. Foster and colleagues' results indicated that approximately 11% to 23% of female youth exposed to CV reported clinically significant levels of psychopathology. Aisenberg and colleagues' indicated that 15% of their

sample of youth exposed to CV met diagnostic criteria for posttraumatic stress disorder.

Although the current results appear to be consistent with other stated findings on clinically significant symptoms for youth exposed to CV, it is not clear if the majority of youth studied are actually experiencing impairment after CV exposure. Without this information, it is difficult to ascertain whether the significantly higher levels of symptoms are *clinically* significant and have any relevance to the child's well-being.

The current study's statistical analyses were unique in that they allowed for an empirical test of competing theories of exposure to CV, an overall construct or two unique factors of violence. The status quo of the field is to examine the relation between researchers's a priori conceptualizations of the experience of CV and outcomes, without testing their assumptions of what experiences actually make up the construct of CV. The current results indicated that the construct of CV is better represented as two subtypes of violence—witnessing and victimization, suggesting that there may be unique and distinguishing characteristics between these two subtypes of violence. The unique characteristics may account for findings from extant research (e.g., Fowler et al., 2009) that indicates differences in the strength of relations between witnessing and victimization and outcomes. These differences in strength further suggest that CV may be comprised of unique subtypes of CV and should be assessed as such.

The present study's results also indicated that youth's experiences of victimization were significantly related to psychological difficulties over and above the effects of witnessing violence. That is, although witnessing violence may influence youth's maladjustment, the effects appear to be negligible once youth's victimization experiences are accounted for. Youth's experiences of victimization may be the driving force behind some of the extant findings of the relations between witnessed violence and psychological outcomes. For example, Kliewer et al.

(1998) found that both witnessing and victimization were significantly predictive of internalizing symptoms, but they did not account for the effects of each type of violence on the other.

Conversely, O'Donnell and colleagues (2002) accounted for the effects of each type of violence and found that only victimization was significantly predictive of internalizing symptoms. These results indicate that some of the field's knowledge (e.g., Fowler et al., 2009) regarding the effects of witnessing violence on youth adjustment may actually be due to the relation between victimization and outcomes. The present results suggest that the field may gain clarity regarding CV's relation to outcomes by improving how we measure and assess CV. By examining witnessing and victimization as related, but separate constructs, it is possible for the field to determine if differential relations exist and what experiences contribute most to youth psychological adjustment.

Youth's Cognitive Appraisals of Community Violence

Range of appraisals. Although recent findings indicated that youth appraise violence as threatening (Kliewer & Sullivan, 2008), preliminary qualitative research also suggested that youth can evaluate violence as irrelevant and challenging (Howard, 1996; Howard et al., 2002). The current study empirically tested this notion and found that youth can and do appraise violence as more than just threatening. Showing a range of interpretations to CV is similar to findings for other kinds of trauma (e.g., parental divorce, natural disasters, medical procedures, interpersonal problems, death of a loved one) in that youth also appear to appraise these events in a variety of ways (Buehler et al., 2007; Ickovics et al., 2006; Lack & Sullivan, 2008; Mazur et al., 1999). These results are notable because they support Lazarus and Folkman's (1984) theory that the experience of stress is an individual process, in part due to how individuals evaluate their experiences.

Threatening and Irrelevant appraisals. Additionally, the results indicated that youth who appraised an event as threatening also appraised the event as relevant to their well-being. The results suggest that youth either evaluated the event in a negative manner (i.e., threatening and relevant) or in a potentially positive manner (i.e., challenging), rather than in a neutral manner (i.e., irrelevant). According to Lazarus and Folkman (1984), appraising an event as irrelevant occurs when an event does not influence a person's life and may not stand out as either a good or a bad experience. Several conclusions may explain this result.

First, the ability for youth to evaluate violence in an irrelevant manner may depend on age. Indeed, developmental research supports the notion that the emergence of appraisal styles begins in early adolescence (e.g., Mazur et al., 1999) and becomes more solidified as children get older. Davis and Compas (1986) found that younger adolescents (age 12-14) were unable to evaluate the amount of impact (i.e., relevance) events could have on their lives, whereas older adolescents (age 15-20) could differentiate events that had a meaningful impact versus events that were not relevant. Roesch and Rowley (2005) findings support this hypothesis; adults were able to evaluate events in a neutral, irrelevant manner; however, adolescents were not. Thus, it is possible, that although pre-adolescent youth in the sample were able to appraise events in different ways, they may not be developmentally able to see violence events as unimportant. One exception would be the findings of Hasan and Power's (2004) factor analysis where 5th grade youth were able to evaluate stressful events in an irrelevant manner. In Hasan and Power's study, however, youth evaluated one specific event, rather than a group of similar events. In contrast, when asking youth about their general appraisal style or a group of events, support for irrelevant appraisals was not found. It may be the case that youth can see one event in isolation as

irrelevant, but when asked to rate multiple events, it is simply not likely that youth will view their exposure to a list of events as irrelevant.

These results may also reflect a measurement issue. Similar to the current findings, Roesch and Rowley (2005) also found that, in one of their samples of adults, threat and relevance were highly correlated (i.e., possibly suggesting one overall construct) and hypothesized that the overall negative tone and wording choice of their irrelevance items may have contributed to the lack of support for irrelevant appraisal. They recommended that future research focus on refining measurement tools by developing irrelevance items that are more neutral in tone. This change may allow youth to evaluate their experiences in a more subjective manner. For example, instead of the reverse coded item, “these situations affect me in serious ways,” the item could state, “although these situations may be stressful, they are not important to me.” This wording may allow youth to report if CV was a stressor, and gives the option that it is possible that the event was not relevant.

Finally, it is possible that youth exposed to CV do not perceive events as a stressor *and* irrelevant. That is, when violent events are evaluated as a threat, it is not possible for youth to also evaluate these events as unimportant. Indeed, qualitative evidence from Howard et al.’s (2002) interviews with youth exposed to CV suggest that youth evaluated CV as irrelevant because they did not perceive the violence as threatening. It is possible that youth exposed to CV do not exhibit *pure* irrelevant appraisals that are neutral, but rather their use of irrelevant appraisals are contingent upon the perception that the violence is non-threatening.

Consistency in appraisals. Previous research has suggested that proximity to the event (i.e., witnessing vs. victimization) may impact how one appraises stressors (Lengua, Long, & Meltzoff, 2006); however, youth’s tendency to appraise an event as threatening/relevant or

challenging did not seem to depend on the proximity of the event. Although there appear to be few studies that have examined the consistency of appraisals in youth across multiple events, one particular study by Hood and colleagues (2009) supports the present findings. Specifically, the authors found that 3rd through 5th grade children demonstrated moderately consistent appraisal styles across six potentially stressful life events, as evidenced by the following coefficient alphas on the subscales: .62 (threat); .62 (relevance); and .58 (challenge). These results suggest that youth may exhibit a style of appraisal when evaluating potentially stressful events. For youth exposed to CV, this style of appraisal may not be affected by the proximity to the event, as youth were just as likely to evaluate events as threatening whether they were witnessed or experienced directly.

Alternatively, youth's consistency in appraisal styles may be the result of measurement issues. The current measure asked youth to appraise a group of events (i.e., witnessing and victimization) rather than individual events. Kliewer and Sullivan (2008) asked youth to identify the most stressful event they had experienced and indicate their appraisal of that one specific event and their results demonstrated a range of threat appraisals *across* youth. However, Kliewer and Sullivan were not able to assess variability *within* individuals. The current study's measurement tool allowed for the assessment of an overall appraisal approach to situations that youth frequently encounter; however, the notion that appraisals can vary by individual events was not assessed. The present findings provide preliminary evidence that youth may exhibit a meaningful pattern of appraisals; however, future research should investigate the consistency of appraisals within youth across a variety of events.

Indirect Effects Model

Threat/relevant appraisals and psychological adjustment. Contrary to hypotheses, the results of the indirect effects model indicated that youth's threat/relevant appraisals may not be an underlying mechanism in the relation between youth exposure to CV and psychological adjustment, despite the significant correlational relations between threat/relevant appraisals and youth's reports of internalizing and adaptive behaviors. The structural model accounted for the effects of all the variables and method variance; therefore, the results are more robust than correlational data. Several reasons may explain the current findings.

First, the current sample's scores of threat/relevant appraisals were lower than extant findings by Kliewer and Sullivan (2008). This may indicate that youth in the current sample were not as threatened by their violence experiences as Kliewer and Sullivan's sample where threat was predictive of outcomes, suggesting that the association between threat and maladjustment may not have been as strong or that there may have been less variance in threat/relevant appraisals than Kliewer and Sullivan's sample. It is also possible that Kliewer and Sullivan's procedural methodology allowed for more accurate reports of youth's appraisals because they engaged the youth in an in-depth interview regarding their most stressful experience with violence prior to their completion of an appraisal measure. The authors indicated that this interview allowed the adolescent to "re-experience the stressor" (Kliewer & Sullivan, 2008, p. 864), which may have primed the adolescent to endorse strong threat appraisals. Second, it is also possible that Kliewer and Sullivan's sample consisted of youth with more pathology than the current sample, thus increasing the strength of the relations between outcomes and appraisal types. Third, the lack of an indirect effect may be due to the research design. Indeed, longitudinal designs are the most appropriate design for assessing true mediation. It is possible

that youth's appraisals of CV affect their adjustment long-term (e.g., Byrant et al., 2006) and the cross-sectional research design was unable to capture this impact. For example, research supporting the notion that appraisals predict adjustment often includes studies that follow youth over the course of one year (e.g., Ickovics and colleagues, 2006; Kliewer & Sullivan, 2008). Finally, it is possible, although not tested in the present study, that the field would benefit from an expanded view of threat appraisals (i.e., harm to others, material loss, and relationship loss), as other researchers have found that these appraisal types were significantly associated with youth's adjustment (Kliewer & Sullivan, 2008).

Challenge appraisal and positive adjustment. Although counterintuitive, the results of the indirect effects model regarding challenge appraisals may shed light on important findings in the field regarding youth's appraisals and their ability to cope with CV. Results indicated that youth who appraised their experiences of witnessed violence in a challenging manner exhibited deficits in their adaptive behaviors. It stands to reason that youth who perceived their violence experiences as an opportunity to grow or become a better person would be more likely to exhibit strengths rather than deficits in their adaptive behaviors. It is possible that a youth's tendency to evaluate violence in a challenging manner may be an indication of a more complicated, underlying phenomenon. Specifically, Lengua and Long (2002) found that youth's challenge appraisals were significantly associated with their use of active coping, which involves direct problem solving, seeking understanding of the situation, and thinking optimistically about the situation. In most studies, the use of active coping in youth is associated with lower levels of psychological difficulties than in youth who used other coping styles. However, researchers have found that when stress events are generally uncontrollable, like witnessing CV, active coping may be a liability (Compas, Conner-Smith, Saltzman, Thomsen, & Wadsworth, 2001; Dempsey,

Overstreet, & Moely, 2000). That is, research supports the notion that avoidance is likely a youth's best response to uncontrollable events in that youth who do so tend to have positive outcomes (i.e., Edlynn, Gaylord-Harden, Richards, & Miller, 2008).

Similar to Lengua and Long's findings, it is possible that in the current sample, youth's use of challenge appraisals of witnessed violence could be an indication that youth may be utilizing active coping strategies, which in turn, could influence youth's deficits in adaptive behaviors. Indeed, approximately 30% of youth in the current sample were either in the at-risk or clinically significant range for perceiving a lack of control in their environment (i.e., Locus of Control scale, adolescent version). Moreover, correlational analyses indicated that youth who perceived less control in their environment were more likely to endorse challenge appraisals than youth who perceived more control in their environment. Further, youth's difficulties in displaying appropriate adaptive behaviors were predicted by their experiences of witnessing violence, even after victimization events were accounted for. This finding may be explained by the fact that youth may have some role in the violent events they experience directly, whereas witnessed events are likely less controllable and avoidable. The results indicated that youth who evaluated witnessed violence in a challenging way exhibited at-risk adaptive behaviors such as difficulties in their abilities to adapt to changes in their environment, interact successfully with peers and adults, accomplish goals and work well with others, perform everyday tasks, and communicate in ways others can understand. These findings are noteworthy, because they suggest a mechanism by which challenge appraisals may operate. Taken together, it would be useful to include an assessment of active coping in future investigations.

Limits of the Current Study

The results of the current study, although important, must be considered in light of several limitations. First, the study utilized a cross-sectional research design; therefore, conclusions regarding causality cannot be determined. True mediation cannot be assessed with cross-sectional findings; therefore, a longitudinal study design would be needed to further assess the role of cognitive appraisal as a mediator. Moreover, the use of a longitudinal study design would allow for the examination of changes over time in youth's cognitive appraisal that may further explain the underlying processes in the relation between exposure to CV and psychological outcomes. Second, the results of the current study cannot be generalized to males or older adolescents because the sample consisted of primarily preadolescent females. Additionally, these findings must be interpreted with caution regarding ethnicity due to the relatively small sample size of youth with varying ethnic backgrounds. Finally, the sample was relatively small and this may have impacted the robustness of the results.

Despite these limitations, the current study provides the field with an expanded examination of appraisal in the context of CV. The current study's findings provide support for the notion that youth appraise their experiences with CV in different ways rather than uniformly evaluating violence as threatening. By examining the complexity of cognitive appraisal, the results provide the field with preliminary evidence regarding the role of differential appraisal types and their relation to psychological adjustment. The current study also provided preliminary support for a new measure of CV that assessed both witnessing and victimization experiences and limited these experiences to only CV. By not including family violence and expanding the violence types to include bullying and dating violence, the current measure may provide the field with a more valid construct of CV. Moreover, the findings suggest that the construct of CV as

two subtypes is valid and meaningful and may be differentially related to outcomes. Further, the effects of each type of violence should be controlled for to know the actual relations of CV to outcomes.

Future Research

Future research should seek to replicate these findings with a larger sample of youth of males and females. Moreover, the construct of irrelevant appraisal may vary by age and investigations focused on assessing potential age differences may clarify the field's understanding of youth's ability to evaluate events in more complex ways. Finally, it would be beneficial for future studies to assess the relation between appraisal and youth adjustment in a clinic-referred sample that may include youth with higher levels of psychopathology than the current sample.

Additionally, it is important that future research continue to empirically examine researchers' a priori assumptions of the construct of CV. Indeed, for the field to achieve a consensus regarding the impact of CV on youth, a clear definition is needed. Moreover, to assist with our understanding of the influence of CV on youth's psychological adjustment, future research should begin to provide some interpretative data regarding the level of pathology in their sample so that researchers can determine whether high levels of symptoms are clinically significant, rather than mere correlational relations. Doing so will provide the field with a greater understanding of how CV may affect youth's well-being.

Finally, studies with longitudinal designs are needed to determine how cognitive appraisal may affect psychological adjustment over time in youth exposed to CV. It is also important to recognize that there may be additional influential factors to consider. Specifically, youth's relationship to the perpetrator and the timing of the violence may impact the relation

between CV and youth's adjustment. Moreover, different types of violent events may be more strongly related to adjustment than others. Future research should assess whether these factors may contribute to the relation between CV and youth's adjustment and thus provide the field with greater understanding of potential contributors to the range of outcomes associated with CV.

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Appendix A

Child Demographic Questionnaire

1. **I am a :**
 - a. Female
 - b. Male
2. **I am _____ years old.**
3. **My race/ethnicity is (Select one or more responses):**
 - a. Asian
 - b. American Indian or Alaska Native
 - c. Black or African American
 - d. Hispanic or Latin
 - e. Native Hawaiian or other Pacific Islander
 - f. Other _____
4. **Have you been to AileyCamp before?**
 - a. Yes, in _____ (what year?)
 - b. No
5. **I was in the _____ grade last year:**
 - a. 5th grade or lower
 - b. 6th grade
 - c. 7th grade
 - d. 8th grade
 - e. 9th grade
 - f. 10th or higher
6. **In school, my grades are:**
 - a. Mostly A's
 - b. Mostly B's
 - c. Mostly C's
 - d. Mostly D's
 - e. Mostly F's
7. **I would like my grades to be:**
 - a. Mostly A's
 - b. Mostly B's
 - c. Mostly C's
 - d. Mostly D's
 - e. Mostly F's
8. **I would describe my health as:**
 - a. Excellent
 - b. Very good
 - c. Good
 - d. Fair
 - e. Poor

Parent Demographic Questionnaire

1. I am a :
 - a. Female
 - b. Male
2. I am _____ years old.
3. My race/ethnicity is (Select one or more responses):
 - a. Asian
 - b. American Indian or Alaska Native
 - c. Black or African American
 - d. Hispanic or Latin
 - e. Native Hawaiian or other Pacific Islander
 - g. White or Caucasian
 - f. Other _____
4. I am this child's:
 - a. Parent
 - b. Grandparent
 - c. Step-parent
 - d. Aunt or Uncle
 - f. Other _____
5. The highest level of schooling I've completed is:
 - a. Some high school
 - b. High school graduate or GED
 - c. Trade school or community college graduate
 - e. Some college
 - f. College graduate
 - g. Graduate or professional school
6. My child was in the _____ grade last year:
7. In school, my child's grades are:
 - a. Mostly A's
 - b. Mostly B's
 - c. Mostly C's
 - d. Mostly D's
 - e. Mostly F's
8. I would like my child's grades to be:
 - a. Mostly A's
 - b. Mostly B's
 - c. Mostly C's
 - d. Mostly D's
 - e. Mostly F's
9. The number of people in my family is _____.
10. My family's yearly income is:
 - c. \$10,000 or less
 - d. \$10,000-\$20,000
 - e. \$20,000-\$30,000
 - f. \$30,000-\$40,000
 - g. \$40,000-\$50,000
 - h. \$50,000-\$60,000
 - i. \$60,000 or more

Appendix B

Table 9

My Experiences with Violence: Community Violence Items

Witnessing Items

Have you ever seen someone else being slapped or hit by a boyfriend, girlfriend, or anyone they went on a date with?

Have you ever seen someone else get chased by gangs or older kids?

Have you ever seen someone else being called names by other kids in your school or community, such as having mean things said to them or others saying they didn't want them around?

Have you ever seen someone else being bullied by kids in your school or community, such as being picked on, another kid chasing them, grabbing them, or making them do something they didn't want to do?

Have you ever seen someone else get shot or shot at with a gun?

Have you ever seen someone else get attacked with a weapon or stabbed with a knife?

Have you ever seen someone else who was seriously hurt after a violent situation?

Have you ever seen someone else get sexually assaulted, molested, or raped?

Have you ever seen someone else get beaten up or mugged?

Have you ever seen someone else get threatened, punched, or hit by someone who was not a family member of theirs?

Have you ever seen someone else get threatened with serious physical harm by someone?

Have you ever seen someone else be at home when someone broke into or tried to force their way into someone else's home?

Have you ever seen someone else get involved with drugs, such as selling drugs or using drugs?

Victimization Items

Have you ever been called names by other kids in your school or community, such as having mean things said to you or others saying they didn't want you around?

Have you ever been slapped or hit by a boyfriend, girlfriend, or anyone you went on a date with?

Have you ever been asked to get involved with drugs, such as selling drugs, or have you ever used drugs?

Have you ever been at home when someone broke into or tried to force their way into your home?

Have you ever been chased by gangs or other older kids?

Have you ever been bullied by kids in your school or community, such as being picked on, another kid chasing you, grabbing you, or making you do something you didn't want to do?

Have you ever been threatened with serious physical harm by someone?

Have you ever been slapped, punched, or hit by someone who was not a family member of yours?

Have you ever been beaten up or mugged?

Have you ever been sexually assaulted, molested, or raped?

Have you ever heard the sound of gunfire in your neighborhood or near your school?

Have you ever been seriously hurt after a violent situation?

Have you ever been attacked with a weapon or stabbed with a knife?

Have you ever been shot or shot at with a gun?

Have you ever seen a dead person somewhere in your neighborhood or community, not including people at a wake or funeral?

Have you ever seen someone being killed by another person?

Table 10

My Experiences with Violence: Appraisal Items

Threat	These situations have a bad effect on me or my life.
	These situations are dangerous to me and my safety.
	These situations lead to bad things happening to me.
Material Loss	These situations lead to something of mine being taken away.
	I might not get to have something I wanted to have because of these situations.
	I might not get to do something that I wanted to do because of these situations.
Relationship Loss	These situations lead to someone important not being able to be there for me.
	These situations lead to someone important not being able to take care of me.
	These situations lead to someone important not being able to spend time with me.
Negative Evaluation by Others	These situations lead to others losing respect of me.
	People who are important to me are disrespecting me in these situations.
	People who are important to me don't care about me in these situations.
Irrelevant	These situations have important and serious effects on me and my life. (R)
	These situations affect me in serious ways. (R)
	These situations will affect me for a long time. (R)
Challenge	I can become a better person after experiencing these situations.
	I am eager and excited about problem solving and figuring out these situations.
	Even though these situations are hard to deal with, I have learned good things from them.

Note: (R) = reverse coded

My Experiences with Violence

Instructions: These questions are about things that can happen in your neighborhood/community, at school, with your friends, or with strangers. These questions are NOT about people who are in your family. These questions are NOT about things you have seen on television or in movies.

Have you ever seen someone else being slapped or hit by a boyfriend, girlfriend, or anyone they went on a date with?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever seen someone else get chased by gangs or older kids?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever seen someone else being called names by other kids in your school or community, such as having mean things said to them or others saying they didn't want them around?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever seen someone else being bullied by kids in your school or community, such as being picked on, another kid chasing them, grabbing them, or making them do something they didn't want to do?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever seen someone else get shot or shot at with a gun?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever seen someone else get attacked with a weapon or stabbed with a knife?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever seen someone else who was seriously hurt after a violent situation?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever seen someone else get sexually assaulted, molested, or raped?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever seen someone else get beaten up or mugged?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever seen someone else get threatened, punched, or hit by someone who was not a family member of theirs?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever seen someone else get threatened with serious physical harm by someone?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever seen someone else be at home when someone broke into or tried to force their way into someone else's home?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever seen someone else get involved with drugs, such as selling drugs or using drugs?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

For the next questions, take a minute to think about all of your experiences with seeing someone else in these situations. You can look back through your answers to question numbers 1-13 to help you remember your answers. (Pause 10 seconds.) How often did you think these thoughts when you saw all of the things we just talked about? For some of the questions, you may think “I didn’t think these thoughts at all” if that wasn’t what you were thinking about. If that’s true, you can answer “no, never.”

How often did you think....

These situations have a bad effect on me or my life.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

These situations lead to something of mine being taken away.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

These situations lead to someone important not being able to be there for me.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

These situations lead to others losing respect of me.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

These situations have important and serious effects on me and my life.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

I can become a better person after experiencing these situations.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

These situations are dangerous to me and my safety.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

I might not get to have something I wanted to have because of these situations.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

These situations lead to someone important not being able to take care of me.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

People who are important to me are disrespecting me in these situations.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

These situations affect me in serious ways.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

I am eager and excited about problem solving and figuring out these situations.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

These situations lead to bad things happening to me.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

I might not get to do something that I wanted to do because of these situations.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

These situations lead to someone important not being able to spend time with me.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

People who are important to me don't care about me in these situations.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

These situations will affect me for a long time.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

Even though these situations are hard to deal with, I have learned good things from them

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

Instructions: These questions are about things that can happen in your neighborhood/community, at school, with your friends, or with strangers. These questions are NOT about people who are in your family. These questions are NOT about things you have seen on television or in movies.

Have you ever been chased by gangs or other older kids?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever been bullied by kids in your school or community, such as being picked on, another kid chasing you, grabbing you, or making you do something you didn't want to do?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever been called names by other kids in your school or community, such as having mean things said to you or others saying they didn't want you around?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever been slapped or hit by a boyfriend, girlfriend, or anyone you went on a date with?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever been asked to get involved with drugs, such as selling drugs, or have you ever used drugs?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever been at home when someone broke into or tried to force their way into your home?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever been threatened with serious physical harm by someone?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever been slapped, punched, or hit by someone who was not a family member of yours?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever been beaten up or mugged?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever been sexually assaulted, molested, or raped?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever heard the sound of gunfire in your neighborhood or near your school?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever been seriously hurt after a violent situation?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever been attacked with a weapon or stabbed with a knife?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever been shot or shot at with a gun?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever seen a dead person somewhere in your neighborhood or community, not including people at a wake or funeral?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

Have you ever seen someone being killed by another person?

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ Every day

For the next questions, take a minute to think about all of your own experiences with these situations. You can look back through your answers to question numbers x-xx to help you remember your answers. (Pause 10 seconds.) How often did you think these thoughts when you experienced all of the things we just talked about? For some of the questions, you may think “I didn’t think these thoughts at all” if that wasn’t what you were thinking about. If that’s true, you can answer “no, never.”

How often did you think....

These situations have a bad effect on me or my life.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

These situations lead to something of mine being taken away.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

These situations lead to someone important not being able to be there for me.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

These situations lead to others losing respect of me.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

These situations have important and serious effects on me and my life.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

I can become a better person after experiencing these situations.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

These situations are dangerous to me and my safety.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

I might not get to have something I wanted to have because of these situations.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

These situations lead to someone important not being able to take care of me.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

People who are important to me are disrespecting me in these situations.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

These situations affect me in serious ways.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

I am eager and excited about problem solving and figuring out these situations.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

These situations lead to bad things happening to me.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

I might not get to do something that I wanted to do because of these situations.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

These situations lead to someone important not being able to spend time with me.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

People who are important to me don't care about me in these situations.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

These situations will affect me for a long time.

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

How often did you think....

Even though these situations are hard to deal with, I have learned good things from them

- ☐ No, never
- ☐ One time
- ☐ A few times
- ☐ Many times
- ☐ All the time

Appendix C

Behavioral Assessment Scale for Children, Parent and Self Report ©